What is claimed is:

1.   A method of forming images, comprising:

obtaining image data defining an image portion and including data elements defining a first subset and a second subset of areas of the image portion having one or more lesser amounts and one or more greater amounts, respectively, of a colorant; and

forming the image portion by placement of the colorant onto a medium during a set of overlapping passes so that the first subset of the areas is formed by at least one of (a) a subset of the overlapping passes and (b) a predefined subset of a plurality of structures available for placing the colorant.

2.   The method of claim 1, wherein each data element includes a data. value defining an amount of the colorant, and wherein the image data is in a contone form, the method further comprising analyzing the contone form of the image data to identify a subset of the data elements having data values corresponding to a subset of permissible values, and wherein the subset of the data elements corresponds to the first subset of the areas.

3.   The method of claim 1, wherein the structures are a plurality of printheads, and wherein forming is performed so that the first subset of the areas is formed by a subset of the plurality of printheads.

4.   The method of claim 1, wherein the structures are a plurality of nozzles, and wherein forming includes forming the first subset of the areas with a predefined subset of the plurality of nozzles.

5.   The method of claim 1, wherein one printhead is available to place the colorant, and wherein forming includes forming the first subset of the areas with the one printhead during the subset of overlapping passes.

6.   The method of claim 1, wherein obtaining includes obtaining image data corresponding to an output swath of the colorant.

7.   The method of claim 1, which further comprises distributing the image data to pass assignments corresponding to the set of overlapping passes, and wherein forming includes placing the colorant during the set of overlapping
5   passes according to the pass assignments.

8.   The method of claim 7, wherein distributing includes applying one or more predefined masks to the image data.

10   9.   The method of claim 7, wherein each data element has a data value defining an amount of the colorant, and wherein distributing includes examining the image data to identify a subset of the data elements having data values defining the one or more lesser amounts of the colorant, and wherein distributing is performed after examining.
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10.   The method of claim 7, wherein each data element includes a data value defining an amount of the colorant, wherein obtaining image data includes (a) obtaining a first form of the image data with data values selected from a larger set of permissible values, and (b) converting the first form to a second form of the
20   image data having data values selected from a smaller set of permissible values, and wherein distributing is performed with the second form of the image data.

11.   The method of claim 10, wherein obtaining a first form includes obtaining a contone form of the image data, wherein converting the first form to a
25   second form includes converting the contone form to a halftone form of the image data, and wherein distributing is performed with the halftone form of the image data.

12.   The method of claim 1, wherein obtaining print data includes
30   obtaining print data in a binary halftone form.

13.   A method of forming images, comprising:

obtaining image data defining an image portion and including data elements, each data element corresponding to an area of the image portion and having a data value selected from a set of three or more permissible values and

5   corresponding to an amount of a colorant for the area, data values selected from a subset of the permissible values corresponding to a subset of the areas; and

forming the image portion by placement of the colorant onto a medium during each of a set of overlapping passes so that the subset of the areas is formed by at least one of (a) a subset of the overlapping passes and (b) a

10   predefined subset of structures available for placing the colorant.

14.   The method of claim 13, wherein forming includes placing the colorant with at least two printheads using only one pass of each of the at least two printheads.

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15.   The method of claim 13, wherein forming is performed with one printhead.

16.   The method of claim 13, wherein obtaining includes converting a

20   first form of the image data having data values selected from a greater number of permissible values to a second form of the image data having data values selected from a lesser number of permissible values.

17.   The method of claim 16, which further comprises distributing

25   portions of the second form of the image data to pass assignments corresponding to the set of overlapping passes, wherein forming is performed according to the pass assignments.

18.   The method of claim 13, wherein obtaining includes obtaining

30   image data corresponding to an output swath of the colorant.

19. A method of printing with reduced registration errors, comprising:

obtaining print data defining an image portion and including data elements, the data elements defining a first subset and a second subset of the areas having one or more lesser amounts and one or more greater amounts, respectively, of a

5   colorant; and

forming the image portion by placement of the colorant onto a print medium during a set of overlapping passes of one or more printheads, so the first subset of the areas is formed by fewer of the overlapping passes than the second subset of the areas.

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20. The method of claim 19, wherein the first subset of the areas is formed by one pass of one printhead.

21. The method of claim 20, wherein the second subset of the areas is

15   formed by colorant placement from each of a set of redundant printheads during one pass of each redundant printhead.

22. The method of claim 19, which further comprises analyzing the print data to identify the first and second subsets of the areas, and distributing portions

20   of the print data to a set of pass assignments corresponding to the set of overlapping passes based on analyzing.

23. The method of claim 19, wherein the fewer passes are used to form a portion of the second subset of the areas.

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24. The method of claim 19, wherein obtaining includes obtaining print data including other data elements corresponding to areas of the image portion having none of the colorant.

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25.   A program storage device readable by a processor, tangibly embodying a program of instructions executable by the processor to perform a method of forming images comprising:

obtaining image data defining an image portion and including data
5   elements, the data elements corresponding to areas of the image portion and defining a first subset and a second subset of the areas having one or more lesser amounts and one or more greater amounts, respectively, of a colorant; and

forming the image portion by placement of the colorant onto a medium during a set of overlapping passes so that the first subset of the areas is formed
10   by at least one of (a) a subset of the overlapping passes and (b) a predefined subset of a plurality of structures available for placing the colorant.

26. An apparatus for forming images, comprising:

a controller configured to obtain image data defining an image portion and including data elements, each data element corresponding to an area of the image portion and having a data value, the data values defining a first subset and

5 a second subset of the areas having one or more lesser amounts and one more greater amounts, respectively, of a colorant, the controller including a data distribution mechanism configured to distribute portions of the image data to a set of pass assignments corresponding to a set of overlapping passes, so that the image portion can be formed according to the set of pass assignments by

10 placement of the colorant onto a medium during each of the set of overlapping passes and with the first subset of the areas being formed by at least one of (a) a subset of the overlapping passes and (b) a predefined subset of structures available for placing the colorant.

15 27. The apparatus of claim 26, wherein the data distribution mechanism is configured so that the first subset of the areas is formed by one pass.

28. The apparatus of claim 26, wherein the data distribution mechanism includes one or more predefined masks configured to create the set of pass

20 assignments by application of the one or more predefined masks to the image data.

29. The apparatus of claim 26, further comprising a data analysis mechanism configured to identify a subset of the data elements corresponding to

25 the first subset of the areas, wherein the data distribution mechanism is configured to create the pass assignments after operation of the data analysis mechanism.

30.   A system for forming images, comprising:

a controller configured to obtain image data defining an image portion and including data elements, the data elements corresponding to areas of the image portion and defining a first subset and second subset of the areas having one or

5   more lesser amounts and one or more greater amounts, respectively, of a colorant, the controller also being configured to distribute portions of the image data to a set of pass assignments corresponding to a set of overlapping passes, so that the first subset of the areas will be formed by a subset of the overlapping passes; and

10   one or more image forming devices configured to perform colorant placement during each of the set of overlapping passes according to the pass assignments to form the image portion.

31.   The system of claim 30, wherein the one or more image forming

15   devices include one or more printheads.

32.   The system of claim 30, wherein the one or more image forming devices include at least two image forming devices with substantially redundant function.

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33.   A method of forming images, comprising:

a step for obtaining image data defining an image portion and including data elements, the data elements corresponding to areas of the image portion and defining a first subset and a second subset of the areas having one or more

5   lesser amounts and one or more greater amounts, respectively, of a colorant; and

a step for forming the image portion by placement of the colorant onto a medium during a set of overlapping passes so that the first subset of the areas is formed by at least one of (a) a subset of the overlapping passes and (b) a predefined subset of a plurality of structures available for placing the colorant.

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